RESTORATION PLAN
FOR 6910 SILVER STREET, WEST LINCOLN

PREPARED FOR:

Mr. Cody Poliquin

6910 Silver Street
West Lincoln, ON L0R 1Y0

PREPARED BY:

COLVILLE CONSULTING INC.

432 Niagara St., Unit 2
St. Catharines, ON L3M 4W3

FILE NO: C25070
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1. INTRODUCTION

The following Restoration Plan has been created to describe and provide site preparation and planting works recommended for the properties located at 6910 Silver Street, in the Township of West Lincoln. This report has been created to satisfy Niagara Peninsula Conservation Authority (NPCA) staff concerns regarding the encroachment of the NPCA regulated buffer area in which a large deposit of shale has been placed. It is also our understanding that there is currently an ongoing ZBA and site plan amendment in relation to the existing business on the Property. The intent of this Restoration Plan is to provide recommendations and restoration designs for this property. The Restoration Plan addresses NPCA comments to address:

- planting specifications;
- sediment and erosion control;
- site grading;
- soil augmentation;
- recommendations for best management practices for construction, pest management practices and monitoring.

2. EXISTING SITE CONDITIONS

2.1 Background

The Subject Lands are located on the central western portion of 6910 Silver Street, in the Town of West Lincoln (See Figure 1). Based on our review of the entire property, it appears the mapped natural heritage features on the property consists of Provincially Significant and Non-Provincially Significant Wetland, an intermittent watercourse and both Significant Woodland and Other Woodland. Background mapping illustrates that the intended restoration area is located with a 30 meter buffer from a provincially significant wetland (PSW). While most of this PSW mapping appears accurate, it appears that over the years this area has gotten drier, as evidence by the ability of active farming occurring along the northern edge of the PSW. As it stands, the mapped PSW extends into the active agricultural field, which upon visual assessment appeared to be heavy, dry clay soils. Based on air photos, it appears that some of the business' yards are within the regulated wetland buffer almost directly abutting the mapped wetland.

The aim of this plan will be to restore and rehabilitate the buffer area affected by the business' operations while maintaining the current operation based on current site conditions. The approximate extent of the restoration area is illustrated in Figure 2.

2.2 Physiography, Soils & Drainage

Based on the Soils of Municipality of Niagara soils mapping (Ontario Institute of Pedology, 1989), the soils on the proposed restoration areas are classified as Lincoln and Haldimand soils. Lincoln soils are typically described as clay or silty clay overtop of heavy clay soils that are poorly drained, and slowly permeable. While Lincoln soil does have relatively high water-holding capabilities, they can become droughty during dry periods. Haldimand soils are typically described as silty clay or clay overtop of heavy clay soils that are imperfectly drained, moderately to slowly permeable, and also have relatively high water-holding capacities. Topographically, the targeted restoration area is generally flat, with a slight slope towards the wetlands to the west.

2.3 Site Assessment

Assessments of intended restoration area and adjacent lands were completed on June 3 and August 15, 2025. The purpose of these assessments was to assess physiography, soils, drainage, vegetation and general site conditions.

Vegetation in the proposed restoration area consists of a mix of meadow, wetland, and weedy herbaceous species, with some sparse woody vegetation bordering the wetland area. There also appears to be a few dead trees adjacent to the area, as it appears this area has become drier over the decades. While there still is some woody vegetation within the wetland buffer, there is more woody vegetation in the form of: Dogwoods, Willows, Poplars, Maples and Oak trees growing within the mapped wetland feature. Vegetation cover within the buffer is generally dense.

There is a large pile of shale that sits along the edge of the buffer, falling both inside and outside of the wetland buffer. This shale deposit consists of generally large chunks, with not a lot of pieces smaller than a fist.

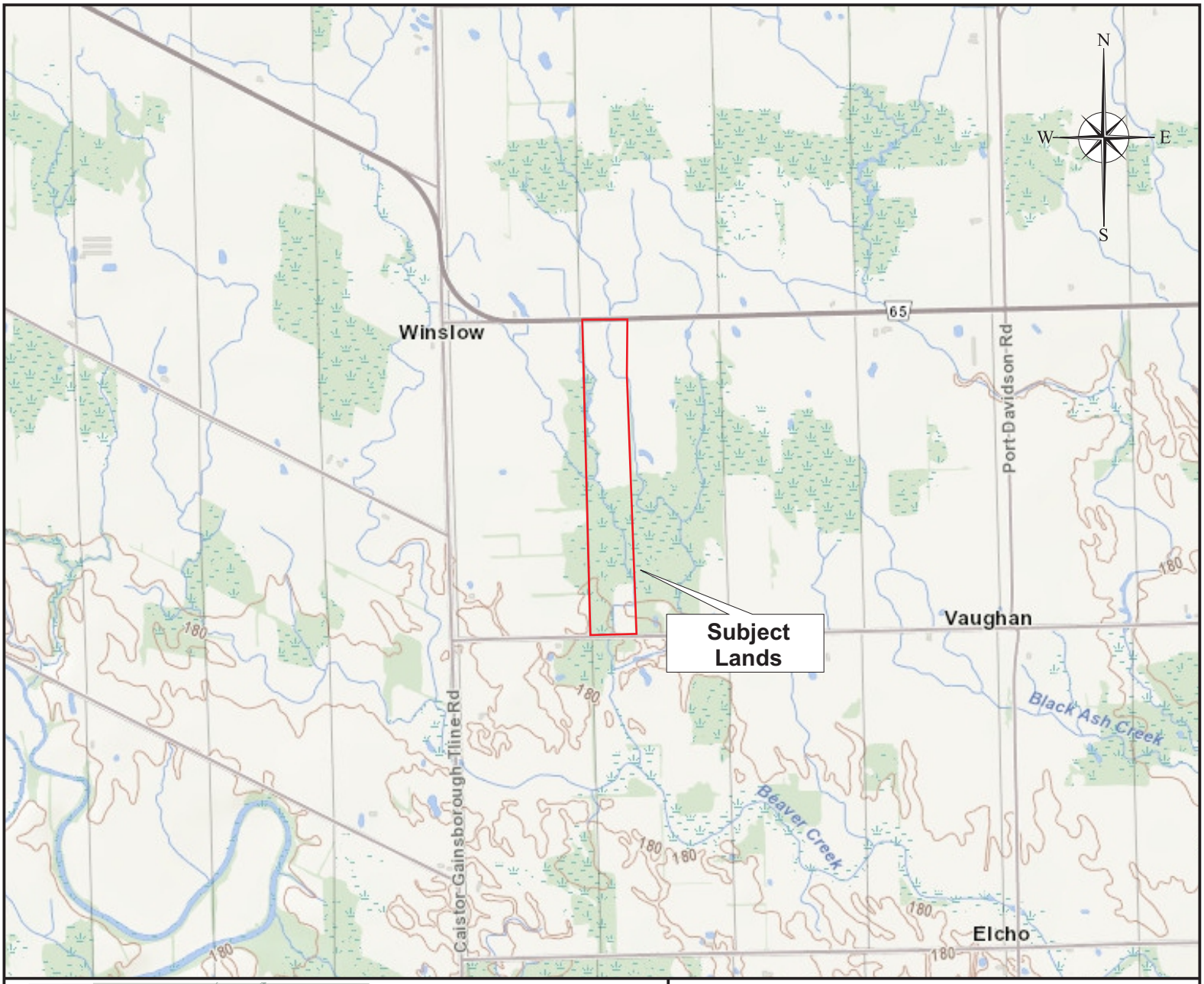

FIGURE 1
Location Map

Restoration Plan for 6910 Silver Street, West Lincoln

Prepared for:

Cody Poliquin

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COLVILLE CONSULTING INC.

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Legend

- Property Boundaries
- 30 Meter Wetland Boundary
- Provincially Significant Wetland
- Other Woodland

Figure 2
Mapped Natural Heritage Features on the Subject Lands

Restoration Plan for 6910 Silver Street, West Lincoln

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3. RESTORATION WORKS

3.1 Site Preparation, Access & Best Management Practices

Site access to the proposed restoration area is unimpeded and does not pose an issue to commencing restoration works as soon as appropriate. Access to this area can be achieved from the laneway.

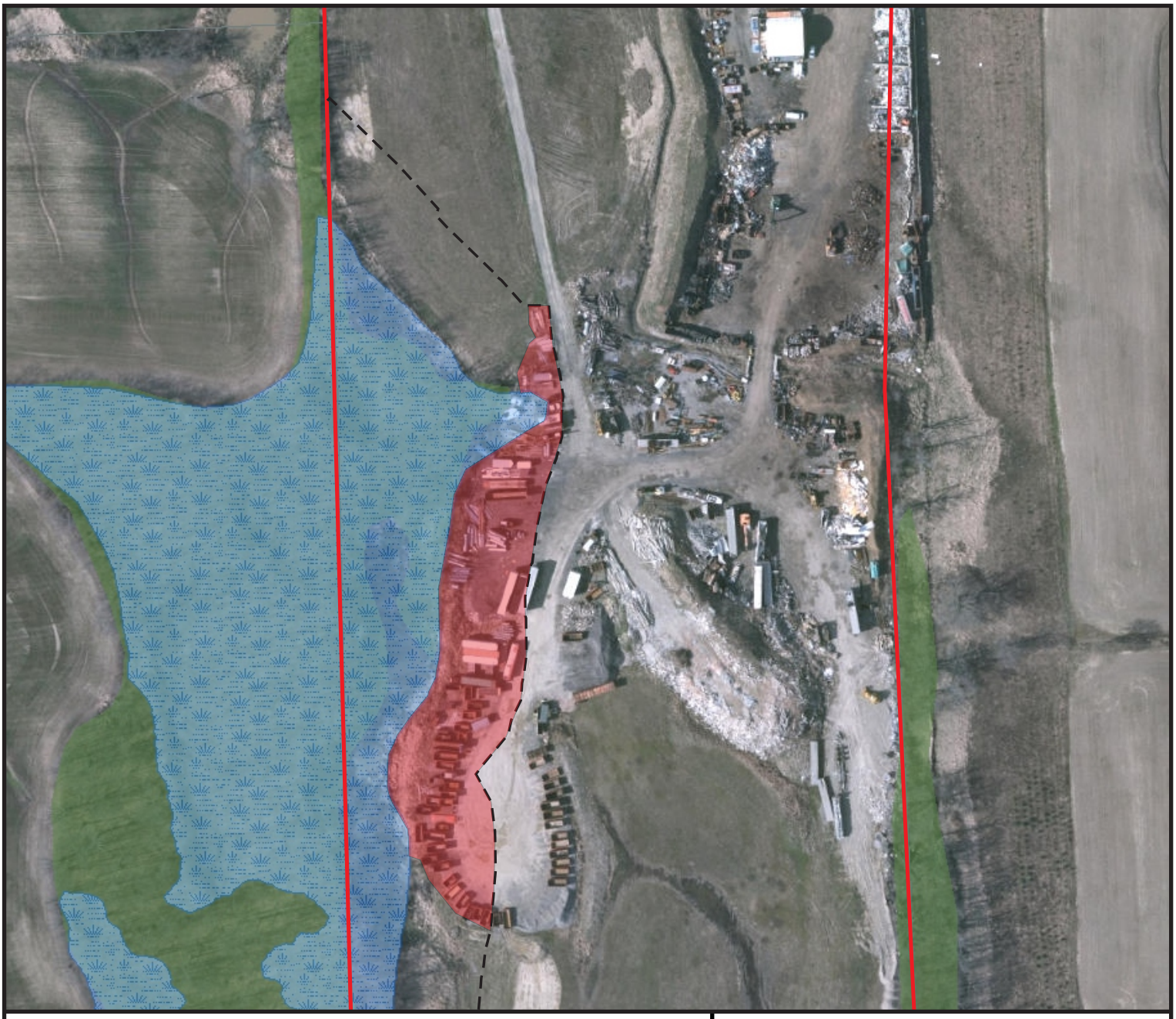
While additional disturbance outside of the proposed restoration area is unlikely, Best Management Practices for construction still applies to restoration works conducted on this site. This list includes, but is not limited to, the following:

1. Establish a correctly installed silt fence along the edge of the intended restoration area and undisturbed buffer area during soil augmentation so that there is no sedimentation or non-native material enters the wetland during site alteration. Silt fence should be done by a qualified construction crew.
2. Keep equipment and construction materials (debris, rubbish, fuel, stockpiles) in a secure location and out of the rain to the greatest extent possible;
3. Keep construction site free of litter, debris and any potentially leaky containers;
4. Park, refuel, clean and maintain machinery and equipment in a designated (preferably visibly marked) area on the site away from wetland and buffer areas to minimize the areas exposure to possible spills;
5. Maintain construction equipment to prevent leaks and spills of fuels, lubricants, hydraulic fluids, and coolants.
6. Store, handle and dispose of fuels, waste, trash and hazardous materials properly; and
7. Capture, contain and clean up any spills or leaks immediately, implement a spill contingency plan and be prepared with clean up materials on-site.

3.2 Shale Removal and Reseeding

As shown in Figure 2, there is a considerable amount of material and equipment adjacent to the mapped wetland. Also not shown on current aerial photography is the large shale pile also within the wetland buffer. It is recommended that all of this equipment and material be removed and brought outside of the line shown in Figure 3. This line is a slightly modified line from the 30m setback from the wetland. This adjusted line maintains the majority of the 30m buffer, which based on site assessments is more than appropriate buffer from the marginal wetland along the edge of the mapped PSW. This line verges slightly off the 30m buffer along the edge of the laneway. This laneway was constructed almost 15 years ago and removing it will greatly affect the day to day operations of the property. Based on assessments of the adjacent lands surrounding the laneway, it appears that the area is both dry and currently in active agricultural production. There will still be just over a 5m buffer from the currently mapped PSW. Based on site assessments, a 5m buffer along the laneway is appropriate. Any material and equipment west of the laneway currently within this buffer is recommended for removal. This includes any gravel/pavement placed as part of the scrapyard.

After removal of material and equipment from within the restoration area, the site should be assessed to determine how much topsoil needs to be imported to properly grade the area of disturbance. It is recommended that at least a few truckloads of topsoil be brought in, spread, and the restoration area be lightly tiled to augment the soil. It is also recommended a silt fence be installed along the edge of disturbance to protect the wetland and the undisturbed area of the wetland buffer. Once the restoration has been graded and soil has been augmented, it will be ready for planting and reseeding.



Legend

- Property Boundaries
- Provincially Significant Wetland
- Other Woodland
- Intended Restoration/Planting Area

Table 1. Shrub Planting List

Species	Size	Count	Approx. Cost
Gray Dogwood	60MM Plug	40	$80.00
	1 GAL	10	$60.00
Silky Dogwood	60MM Plug	30	$60.00
Elderberry	60MM Plug	30	$60.00
	1 GAL	10	$60.00
Staghorn Sumac	60MM Plug	30	$60.00
	1 GAL	20	$120.00
Willow	60MM Plug	30	$60.00
Total		**200**	**$560.00**

Figure 3
Intended Restoration & Planting Area

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3.3 Planting Recommendations

After the restoration area has been prepped and an appropriate grade has been set, it is recommended that these lands be seeded as soon as feasible in order to limit erosion potential and to establish vegetation cover. It is also recommended that a mixture of shrubs be placed along the restoration area to revegetate the area and create an effective transitional area to the wooded wetland. Based on our assessments of the Subject Property and adjacent area, we have created a recommended planting list for the restoration area.

Tables 1 illustrates the planting list of shrubs to be installed in the restoration area. It is recommended that 200 shrubs be planted throughout the restoration area, with a slightly higher planting density along the wetland edge. The rationale for the concentration of shrub plantings along the wetland is to create a transitional area between wooded wetland and the new edge of the business. These plantings will consist of 1-gallon and 60 mm plugs. Along with these plantings, a wetland/meadow seed mix should be spread across any area that requires vegetative establishment. Figure 3 shows recommended planting locations. Shrub planting locations should be distributed among the restoration and chosen by the plant supplier based on suitability.

It is also recommended that approximately 100 tree nuts be broadcast across the restoration area. The nuts are to be locally sourced if possible. The spreading of tree nuts across the restoration lands helps both additional vegetation establishment and provides food for animals.

Plant material to be used in this planting plan should be obtained from a reputable native plant supplier in Niagara. All material to be planted must show no outward signs of physiological stress, as indicated by:

- Severe chlorosis of the foliage;
- Wilted or wilting foliage;
- Dead or dying foliage, or terminal shoot or bud damage;
- Dead or dying roots; and
- Disease or insect infestation.

Planted seedlings observed with any of the above symptoms must be replaced with healthy seedlings.

Table 1. Shrub Planting List

Species	Size	Count	Approx. Cost
Gray Dogwood	60MM Plug	40	$80.00
	1 GAL	10	$60.00
Silky Dogwood	60MM Plug	30	$60.00
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	1 GAL	10	$60.00
Staghorn Sumac	60MM Plug	30	$60.00
	1 GAL	20	$120.00
Willow	60MM Plug	30	$60.00
Total		**200**	**$560.00**

Any areas disturbed by remediation efforts should afterwards be reseeded with an NPCA approved native meadow/wetland seed mix. A balanced wetland mixture provided by Sassafras Farms lists the price of this mix at $360.00 per kilogram at a seeding rate of 9 kg/acre. This wetland mixture includes Fox Sedge, Soft Rush, Riverbank Wild Rye, Hop Sedge, Monkey Flower, Blue Vervain, Purple Stemmed Aster, Fringed Sedge, Joe Pye Weed, Boneset, Wool Grass, Swamp Milkweed, Rough Leaved Goldenrod and Dark Green Bulrush.

3.4 Habitat Creation

3.4.1 Upland Areas

To help enhance wildlife habitat opportunities, it is recommended that some coarse woody debris be scattered near the edge of the mapped wetland. If there are any down or dead trees on the Subject Lands, they could be used for this habitat enhancement. If not, additional material needed should be sourced from off site and added during construction and planting. It is recommended that this be done after soil augmentation but before planting.

4. MAINTENANCE & MONITORING

4.1 Timing of Works & Construction Steps

It is recommended that material removal commence when the soil is driest to limit the potential for erosion or sediment movement into the mapped wetland. Restoration works should be conducted in early to mid-summer, during a weeklong stretch where the restoration area and access to it is dry enough to have machinery on it. This also coincides with reduced wildlife activity and native species dormancy.

The general steps during the construction phase for the restoration area are as follows:

1. Install limit of work fencing around the restoration area, making sure that any existing vegetation remain undamaged and protected during restoration works.
2. Install erosion and sediment control measures as necessary;
3. Install silt fencing along the edge of the mapped wetland prior to site disturbance;
4. Begin removing material and equipment from intended restoration area with appropriate machinery;
5. Remaining soil should be leveled out and properly graded to pre disturbance slopes;
6. Conduct soil augmentation by adding 2-5 truckloads of topsoil, as needed, followed by tilling the topsoil into the existing soils;
7. Install and create wildlife habitat along the mapped wetland edge with woody material;
8. Plant shrubs in accordance with the Restoration Plan (Figure 3). This should be done in the fall when the plant supplier identifies an appropriate time frame for ideal planting conditions;
9. Seed the restoration area using broadcasting or hydroseeding, and;
10. Refer to general best management practices laid out in this report. During construction, adjustments to the plan should be made proactively as a result of site limitations or to capitalize on improved approaches based on site conditions and resource availability.

4.2 Monitoring

Monitoring will document any successes and/or failures of the implementation of the Restoration Plan and provide subsequent recommendations to improve the plan`s success. To ensure that plantings are successful, it is recommended that plant material be monitored by the plant supplier/installer in early-fall the year after planting.

The year-end monitoring report will include:

- Photo monitoring – locations will be confirmed after construction is complete;
- Shrub planting success and health assessment;
- Vegetation establishment and extent of vegetation;
- Success of seed mix, vegetation densities and assessment of non-native or invasive species establishment; and7

- Recommendations for further restoration improvements to the function of the area.

I trust this plan meets your needs and expectations. Please do not hesitate to contact the undersigned at 905-935-2161 should you have any questions or concerns regarding this plan. Alternatively, you can reach me by email at nash@colvilleconsultinginc.ca.

Yours Sincerely,

Nash Colville B.A. CISEC-IT, CERPIT
ISA-certified Arborist: ON-3316A
Colville Consulting Inc.

5. REFERENCES

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Appendix A:

Site Photos


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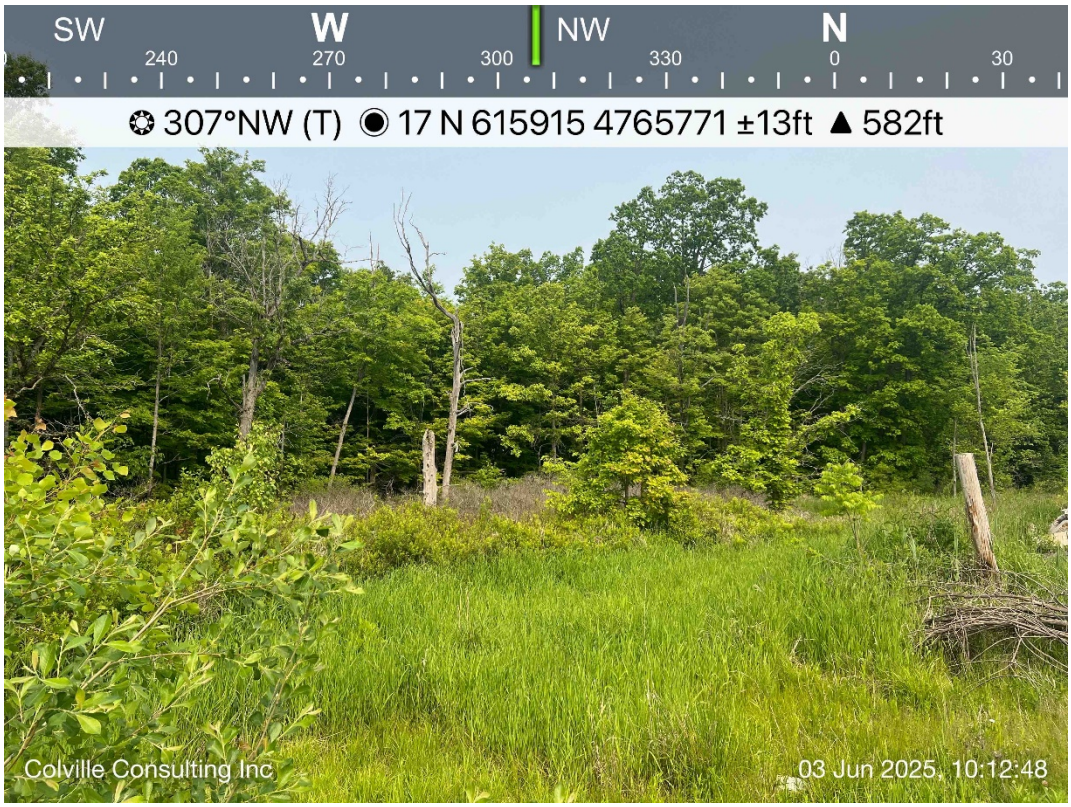
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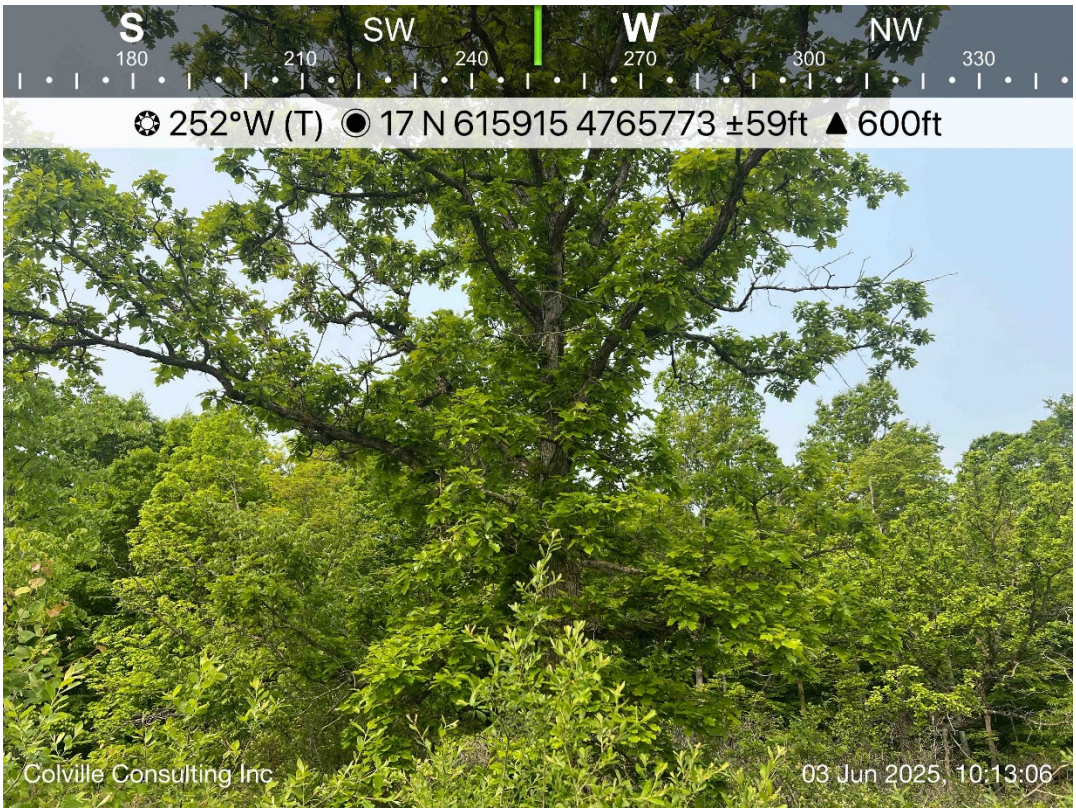
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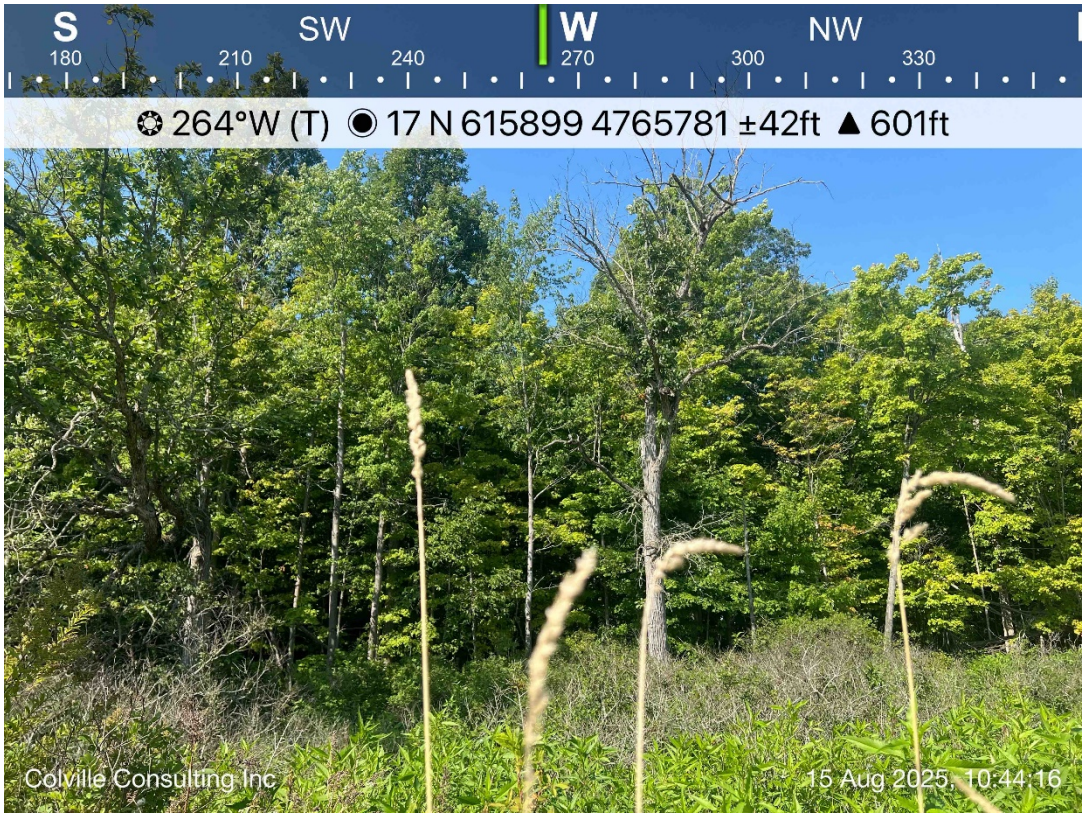
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